

AMENDMENTS TO THE CLAIMS

This listing of claims will replace all prior versions, and listings, of claims in the application.

1 - 54 (Cancelled)

55. (Currently Amended) The apparatus of claim [[54]] 57, wherein the thermal interface material comprises a film having a phase-change material to change phase by receiving the heat from the integrated circuit.
56. (Currently Amended) The apparatus of claim [[54]] 74, wherein the adhesive is attached along a plurality of edges of the thermal interface material.
57. (Currently Amended) [[The apparatus of claim 56,]] An apparatus comprising:

a thermal interface material having a first side to attach to a cooling device, and a second side to receive heat from an integrated circuit by contacting the integrated circuit at a heat transfer area; and

an adhesive attached to the first side wherein the adhesive is attached to a portion of the first side that is outside the heat transfer area,

wherein the adhesive is attached along a plurality of edges of the thermal interface material, and wherein the plurality consists essentially of two.
58. (Previously Presented) The apparatus of claim 56, wherein the plurality comprises four.
59. (Currently Amended) The apparatus of claim [[54]] 76, wherein the adhesive is attached along a periphery of the heat transfer area.

60. (Currently Amended) [[The apparatus of claim 54,]] An apparatus comprising:
- a thermal interface material having a first side to attach to a cooling device, and a second side to receive heat from an integrated circuit by contacting the integrated circuit at a heat transfer area; and
- an adhesive attached to the first side wherein the adhesive is attached to a portion of the first side that is outside the heat transfer area,
- wherein the adhesive comprises a strip having a thickness between about 0.0125 millimeters and 0.025 millimeters.
61. (Currently Amended) The apparatus of claim [[54]] 74, further comprising the cooling device attached to the first side of the thermal interface material.
62. (Previously Presented) The apparatus of claim 61, further comprising the integrated circuit attached to the second side of the thermal interface material.
63. (Currently Amended) An apparatus comprising:
- a phase changing thermal interface material to thermally couple a cooling device with an integrated circuit, the phase changing thermal interface material comprising:
- a heat transfer area between the integrated circuit and the cooling device,
- a first surface to receive the heat from the integrated circuit by contacting the integrated circuit within the heat transfer area,
- a phase change material to change from a solid phase to a liquid phase by absorbing the heat from the integrated circuit at the first surface, and

a second surface to provide the heat to the cooling device by contacting the cooling device within the heat transfer area; and

an adhesive to attach the thermal interface material to the cooling device, wherein the adhesive is ~~[[attached]]~~ applied to the second surface of the thermal interface material ~~[[substantially]]~~ outside of the heat transfer area.

- 64. (Previously Presented) The apparatus of claim 63, wherein the thermal interface material comprises a Chomerics T443 film.
- 65. (Previously Presented) The apparatus of claim 63, wherein the adhesive comprises a pressure sensitive adhesive.
- 66. (Previously Presented) The apparatus of claim 63, wherein the adhesive comprises a strip having a thickness between about 0.0125 millimeters and 0.025 millimeters.
- 67. (Previously Presented) The apparatus of claim 63, wherein the adhesive is attached at a plurality of edges of the thermal interface material.
- 68. (Previously Presented) The apparatus of claim 67, wherein the plurality consists essentially of two.
- 69. (Previously Presented) The apparatus of claim 63, wherein the adhesive is attached along a periphery of the thermal interface material.
- 70. (Previously Presented) The apparatus of claim 63, further comprising the cooling device attached to the second surface of the thermal interface material to provide the heat to the thermal interface material.

Claims 71-73 (Cancelled)

74. (Currently Amended) [[The apparatus of claim 54,]] An apparatus comprising:

a thermal interface material having a first side to attach to a cooling device, and a second side to receive heat from an integrated circuit by contacting the integrated circuit at a heat transfer area; and

an adhesive attached to the first side wherein the adhesive is attached to a portion of the first side that is outside the heat transfer area,

wherein the thermal interface material comprises a tape or film.
75. (Cancelled)
76. (Currently Amended) [[The apparatus of claim 54,]] An apparatus comprising:

a thermal interface material having a first side to attach to a cooling device, and a second side to receive heat from an integrated circuit by contacting the integrated circuit at a heat transfer area; and

an adhesive attached to the first side wherein the adhesive is attached to a portion of the first side that is outside the heat transfer area,

wherein the thermal interface material comprises a phase change material.
77. (Currently Amended) The apparatus of claim [[54]] 74, wherein the adhesive comprises a pressure sensitive adhesive.